

IN THE CLAIMS

Please cancel claims 1-8 and add the following claims:

Claims 1-8 (Cancelled).

9. (New) A semiconductor single crystal manufacturing apparatus using the Czochralski method comprising a crucible for pooling melt of a raw material of a semiconductor single crystal, and a plurality of heaters vertically disposed outside the crucible for heating and melting the raw material, wherein

a heat shield is provided in a space between the crucible and a substance which is disposed outside the plurality of heaters, the substance facing the plurality of heaters, or in the vicinity of that space,

each of the heaters is independently supplied with electric power, and

the heat shield is provided in a location in the vicinity of an area where an amount of generated heat is relatively low among generated heat distribution by all of the heaters.

10. (New) The semiconductor single crystal manufacturing apparatus of claim 9, wherein the area where the amount of generated heat is low is provided by,

for a heater located on an upper side, adjusting a resistance value for heater respective portions such that the amount of generated heat in a heater lower portion is lower than that in a heater upper portion, and

for a heater located on a lower side, adjusting the resistance value for the heater respective portions such that the amount of generated heat in a heater upper portion is lower than that in a heater lower portion.

11. (New) The semiconductor single crystal manufacturing apparatus of claim 9, wherein the substance which is disposed outside the plurality of heaters, facing the plurality of heaters, is a heat insulating material.

12. (New) The semiconductor single crystal manufacturing apparatus of claim 10, wherein the substance which is disposed outside the plurality of heaters, facing the plurality of heaters, is a heat insulating material.

13. (New) The semiconductor single crystal manufacturing apparatus of claim 9, wherein the heat shield is provided around the entire periphery of the crucible.


14. (New) The semiconductor single crystal manufacturing apparatus of claim 10, wherein the heat shield is provided around the entire periphery of the crucible.

15. (New) The semiconductor single crystal manufacturing apparatus of claim 9, wherein the material constituting the heat shield contains a graphite fiber material or graphite.

16. (New) The semiconductor single crystal manufacturing apparatus of claim 9, wherein an inside diameter of the heat shield is larger than an outside diameter of the plurality of heaters.

17. (New) A graphite crucible, wherein the application therefor is the semiconductor single crystal manufacturing apparatus of claim 9 in which a heat shield is provided outside the crucible.

Respectfully submitted,
WELSH & KATZ, LTD.

A handwritten signature in black ink, appearing to read "Gerald T. Shekleton". The signature is fluid and cursive, with the first name "Gerald" and last name "Shekleton" clearly distinguishable.

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